

HOMELAND SECURITY

Graduate Program Head	Alexander Siedschlag
Program Code	HLS
Campus(es)	World Campus (M.P.S.)
Degrees Conferred	Master of Professional Studies (M.P.S.)
The Graduate Faculty	View (https://secure.gradsch.psu.edu/gpms/index.cfm?searchType=fac&prog=HLS)

The intercollege Master of Professional Studies in Homeland Security (iMPS-HLS) degree program is designed to prepare professionals and develop leaders for the field of homeland security by providing exceptional graduate education that includes an integrated curriculum, expert faculty, and student interaction. The program is comprised of courses from several Penn State colleges and delivered via distance education through the Penn State World Campus to accommodate the needs and careers of professionals who are already active in homeland security and related fields of civil security, or those interested in transitioning into the field. The program provides select graduate students with an integrated, cross-disciplinary curriculum that is focused on a set of unified educational goals to help them understand and manage the complexities of homeland security in a global environment. Within the degree program and in addition to its common core curriculum, students choose the base program (general homeland security and emergency management) or one of six options that represent main elements, capabilities, and risk-informed priorities of the homeland security mission space:

1. agricultural biosecurity and food defense;
2. counterterrorism;
3. cyber threat analytics and prevention;
4. geospatial intelligence;
5. public health preparedness; and
6. information security and forensics.

The participating academic units for this collaborative program are: Penn State Harrisburg, the College of Medicine (in collaboration with the Milton S. Hershey Medical Center), the College of the Liberal Arts, the College of Information Sciences and Technology, the College of Earth and Mineral Sciences, the College of Agricultural Sciences, and Penn State Great Valley.

Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<http://gradschool.psu.edu/prospective-students/how-to-apply>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<http://gradschool.psu.edu/graduate-education-policies>).

Core Application Packet

- Completed online Graduate School application (<http://www.gradschool.psu.edu/prospective-students/how-to-apply>) and payment of nonrefundable application fee
- Statement of purpose
- Vita or résumé
- Three letters of recommendation

- Official transcripts from all post-secondary institutions attended (<http://www.gradschool.psu.edu/prospective-students/how-to-apply/new-applicants/requirements-for-graduate-admission>)

Statement of Purpose and Curriculum Vitae

A statement of professional experience and goals (up to 500 words) and the applicant's vita or résumé must accompany the application.

Letters of Recommendation

- The individuals writing letters should be familiar with you and comfortable discussing your professional and/or academic strengths and accomplishments.
- The Admissions Committee prefers that all letters be written within the last six months and reference the applicant's current career goals and/or ability to perform graduate level study.
- A person choosing to submit a letter of reference will do this through the online application process and either select our pre-formatted template or upload his/her own letter.

GPA Requirements

The applicant's grade-point average is interpreted by the Admissions Committee in the context of a completed application.

GRE Requirements

The Graduate Record Examination may be required by some options.

Other Considerations

Special backgrounds, abilities, and interests related to homeland security are desirable.

Degree Requirements

Master of Professional Studies (M.P.S)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-700 Professional Degree Policies (<http://gradschool.psu.edu/graduate-education-policies>).

The Master of Professional Studies in Homeland Security program requires a minimum of 33 credits, 24 of which must be earned at Penn State. Up to 10 graduate credits may be transferred in from a regionally accredited institution (subject to restrictions outlined in GCAC-309 Transfer Credit (<http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/transfer-credit>)); if the full 10 credits are transferred, the minimum total number of credits in the degree program will be 34. At least 18 credits must be courses at the 500 or 800 level, of which 6 credits must be in 500-level courses.

Students are expected to maintain a B (3.0) or better average in academic courses to be retained in the program. Graduate Council policy requires that students must have a GPA of 3.0 or above in order to graduate from the program.

Each student will take a 9 credit *core curriculum* consisting of HLS 801/PADM 801, HLS 803/PHIL 803, and HLS 805/PLSC 805, as well as a non-credit Orientation Course. Students will also take 12 credits of prescribed courses for the specialized option. There are 9 elective credits that are chosen from an approved list in consultation with the student's academic adviser. The list of electives is maintained by the Base Program and Option Directors and is provided to the students in the respective specialization area. Finally, each degree candidate must complete a capstone project on a topic related to homeland security and defense, in association with HLS 594/AGBIO 594/GEOG 594/INSC 594/IST 594/PHP 594/PLSC 594.

Time Limitation

All degree requirements for the Master of Professional Studies in Homeland Security must be met within five years of admission to degree status.

Prescribed Courses

Homeland security refers to the unifying core for the vast global network of organizations and institutions that are involved in the efforts to secure society. Regardless of field of specialization, or chosen discipline for graduate study, all professionals in the program will participate in a Unifying Core Curriculum with the following educational goals and objectives:

- Understand major policies and legislation that shapes homeland security in a globalized society.
- Become familiar with organizations that play a key role in the implementation of homeland security policies and administration, and recognize the interactions among them.
- Understand the way in which a person or group responds to a set of conditions so as to prevent and respond to incidents and catastrophic events when needed.
- Recognize the impact that catastrophic events, both natural and man-made, have on society and the domestic and global economy.
- Identify and assess potential threats, vulnerabilities, and consequences.
- Apply leadership skills and principles that are necessary for producing and acting on information of value within a collaborative setting.
- Communicate effectively in the context of particular institutional cultures.
- Use, conduct, and interpret research and data effectively in decision-making.
- Practice ethics and integrity as a foundation for analytical debate and conclusion.
- Develop an appreciation of the cultural, social, psychological, political, and legal aspects of terrorism and counterterrorism.

The Core Curriculum consists of the following four courses:

Code	Title	Credits
Required Courses		
HLS Orientation Course (non-credit) - Overview of program expectations, parts, academic specialization areas, and mechanics; as well as an essential overview of the field of homeland security and its community of practice. The Options may add content to aspects of homeland security that are specific to their academic specialization area.		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3
Total Credits		9

Listed below are the courses required/suggested for the Base Program and for the Options:

Homeland Security (Base Program)

Code	Title	Credits
Required Courses		
HLS Orientation		0

HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3

Base Program Prescribed Courses

HLS 811	Fundamentals of Homeland Security	3
HLS/PADM 404	Homeland Security and Defense in Practice	3
HLS/PADM 802	Multifaceted Approaches to Homeland Security	3
HLS 804	Strategic Planning and Organizational Imperatives in Homeland Defense and Security	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Base Program Director and is provided to the students in the base program.		9
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Capstone Experience

HLS 594	Research Topics	3
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Total Credits		33
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Agricultural Biosecurity and Food Defense Option

Code	Title	Credits
Required Courses		
HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3
Agricultural Biosecurity and Food Defense Option Prescribed Courses		
AGBIO 520	Agricultural Biosecurity: Protecting a Key Infrastructure	3
AGBIO 521	Food Defense: Prevention Planning for Food Processors	3
AGBIO 801	Veterinary Infectious Disease Diagnostic and Surveillance Systems	3
AGBIO 802	Plant Protection: Responding to Introductions of Threatening Pests and Pathogens	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.		9
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Capstone Experience

AGBIO 594	Agricultural Biosecurity and Food Defense Capstone Experience	3
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Total Credits		33
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Counterterrorism Option

Code	Title	Credits
Required Courses		
HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3
Counterterrorism Option Prescribed Courses		
PLSC 836	Root Causes of Terrorism	3
PLSC 569	Counterterrorism	3

PLSC 838	Tools and Analysis of Counterterrorism	3
PLSC 837	Radicalization, Counter-Radicalization, and De-Radicalization	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. 9

Capstone Experience

PLSC 594	Research in Political Science	3
Total Credits		33

Cyber Threat Analytics and Prevention Option

Code	Title	Credits
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Required Courses

HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3

Cyber Threat Analytics and Prevention Option Prescribed Courses

SWENG 545	Data Mining	3
INSC 561	Web Security and Privacy	3
INSC 846	Network and Predictive Analytics for Socio-Technical Systems	3
IST 564	Crisis, Disaster and Risk Management	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. 9

Capstone Experience

INSC 594	Research Topics	3
Total Credits		33

Geospatial Intelligence Option

Code	Title	Credits
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Required Courses

HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3

Geospatial Intelligence Option Prescribed Courses

GEOG 882	Geographic Foundations of Geospatial Intelligence	3
GEOG 483	Problem-Solving with GIS	3
GEOG 480	Exploring Imagery and Elevation Data in GIS Applications	3
GEOG 885	Advanced Analytic Methods in Geospatial Intelligence	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. 9

Capstone Experience

GEOG 594A	Culminating Experiences in Geospatial Intelligence	1
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GEOG 594B	Geospatial Intelligence Capstone Experience	2
Total Credits		33

Information Security and Forensics Option

Code	Title	Credits
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Required Courses

HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3

Information Security and Forensics Option Prescribed Courses

IST 454	Computer and Cyber Forensics	3
IST 456	Information Security Management	3
IST 815	Foundations of Information Security and Assurance	3
IST 554	Network Management and Security	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. 9

Capstone Experience

IST 594	Research Topics	3
Total Credits		33

Public Health Preparedness Option

Code	Title	Credits
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Required Courses

HLS Orientation		0
HLS/PADM 801	Homeland Security Administration: Policies and Programs	3
HLS/PHIL 803	Homeland Security: Social and Ethical Issues	3
HLS/PLSC 805	Violence, Threats, Terror, and Insurgency	3

Public Health Preparedness Option Prescribed Courses

PHP 410	Public Health Preparedness for Disaster and Terrorist Emergencies I	3
PHP 510	Public Health Preparedness for Disaster and Terrorist Emergencies II	3
PHP 527	Public Health Evaluation of Disasters and Bioterrorism	3
PHP 530	Critical Infrastructure Protection of Health Care Delivery Systems	3

Electives

Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. 9

Capstone Experience

PHP 594	Research Topics	3
Total Credits		33

Student Aid

World Campus students in graduate degree programs may be eligible for financial aid. Refer to the Tuition and Financial Aid section (<http://>

www.worldcampus.psu.edu/tuition-and-financial-aid) of the World Campus website for more information.

- **Information Security and Forensics Option:** David Fusco
- **Public Health Preparedness Option:** Eugene J. Lengerich

Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Agricultural Biosecurity (AGBIO) Course List (<https://bulletins.psu.edu/university-course-descriptions/graduate/agbio>)

Homeland Security (HLS) Course List (<https://bulletins.psu.edu/university-course-descriptions/graduate/hls>)

Public Health Preparedness (PHP) Course List (<https://bulletins.psu.edu/university-course-descriptions/graduate/php>)

Learning Outcomes

Graduates from the iMPS-HLS program will be able to...

1. **SEARCH AND SYNTHESIZE** literature to integrate homeland security principles into disciplines and professional fields.
2. **INTEGRATE** the use of disciplinary methods, techniques, and knowledge to solve practical problems.
3. **IDENTIFY AND ASSESS** potential threats, vulnerabilities, and consequences in a context from local to global environments.
4. **EVALUATE** scientific evidence and best practice to inform and improve real-world decisions.
5. **PRACTICE** ethics and integrity as a foundation for analytical debate and conclusion.
6. **APPLY** leadership skills and principles to produce and act on information in a collaborative setting.
7. **COMMUNICATE** the major issues of their discipline effectively to a diverse community of the Homeland Security Enterprise.

Contact

Campus	World Campus
Graduate Program Head	Alexander Siedschlag
Program Contact	Lesa Irene Stanford 777 West Harrisburg Pike 131W Olmsted Bldg. Middletown PA 17057 lis12@psu.edu (717) 948-6050
Program Website	View (https://www.worldcampus.psu.edu/penn-state-online-homeland-security-programs)

Option Directors

- **Base Program:** Alexander Siedschlag
- **Agricultural Biosecurity and Food Defense Option:** Gretchen Kuldau
- **Counterterrorism Option:** Andrew Vitek
- **Cyber Threat Analytics and Prevention Option:** Robin Qiu
- **Geospatial Intelligence Option:** Gregory Thomas